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# An adult intussusception mimicking early appendicitis

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## ABSTRACT

Adult intussusception is rare with variable clinical presentation. We reported a case of adult intussusception presenting with symptoms mimicking acute appendicitis. The patient presented as an abdominal pain from epigastric area with shifting gradually to RLQ. The atypical presentation of adult intussusception remains a diagnostic challenge to the emergency physician.

## 1. History

A 42-years-old female visited our emergency department with the initial presentation of abdominal pain. She was afebrile. Her menstruation was regular and was not pregnant at the present time. The dull pain was initially intermittent over epigastric area. It then shifted to right lower quadrant (RLQ) of abdomen, accompanying with vomiting. On physical examination, the abdomen was soft and mild distended. Tenderness was found over RLQ abdomen without rebounding pain. The bowel sound revealed normoactive bowel movement. No palpable mass could be found.

Table 1 listed the initial laboratory findings, which was without significant abnormality. Abdominal X-ray showed bowel distention. Bed-side abdominal ultrasonography revealed “bull’s eye” lesion (target sign) over RLQ abdomen (Figure 1). Intussusception with short segment of terminal

ileum into proximal ascending colon was impressed by computed tomography (Figure 2). Definite diagnosis was confirmed by exploration laparotomy. Intussusception with a 3 cm segment (3 cm) of terminal ileum and cecum into proximal ascending colon was found. The grossly normal appendix was removed for pathology review and was normal. The postoperative course was uneventful.



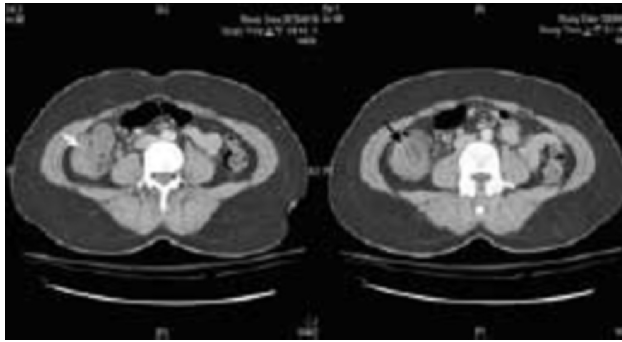
**Figure 1.** Abdominal ultrasonography revealed “bull’s eye” or “coiled spring” lesion (target sign, white arrow) representing layers of the bowel within the bowel.

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**Figure 2.** Computed tomography shows intussusception with short segment of terminal ileum into proximal ascending colon (white arrow) and layers of the bowel within the bowel (target sign, black arrow) in cross section.

**Table 1**

Laboratory data at emergency department.

Item	Data		Normal range
WBC	8.1	1 000/ $\mu$ L	3.9~10.6
RBC	4.52	Million/ $\mu$ L	4.5~5.9
HGB	12.7	g/dL	13.5~17.5
HCT	37.2	%	41~53
MCV	82.3	fL	80~100
MCH	28.1	Pg/cell	26~34
RDW	12.7	%	11.5~14.5
Platelet	254	1 000/ $\mu$ L	150~400
Segment	78.0	%	42~74
Lymphocyte	14.2	%	20~76
Monocyte	7.0	%	0~12
Eosinophil	0.4	%	0~5
Basophil	0.4	%	0~1
ALT	28	U/L	0~36
Na(B)	136.3	Meg/L	134~148
K(B)	3.14	Meg/L	3.0~4.8
GLU	110	Mg/dL	70~105
CR(B)	0.55	Mg/dL	0.4~1.4
LIPASE	35	U/L	<190
AST	33	U/L	0~34
CRP	45.7	Mg/L	<5
Urine color	Yellow	–	Yellow
Urine Turbidity	Clear	–	Clear
SP. Gravity	1.015	–	1.015~1.030
Urine PH	6.0	–	4.5~8.0
Leukocyte	Negative	–	Negative
Nitrite	Negative	–	Negative
Protein	Negative	–	Negative
Glucose	Negative	–	Negative
Ketone	Negative	–	Negative
UBG	0.1	EU/dL	0.1~1.0
Bilirubin	Negative	–	Negative
RBC	9	/ $\mu$ L	<20
WBC	5	/ $\mu$ L	<30
Sequamus	22	/ $\mu$ L	<30

## 2. Discussion

Here we presented an adult intussusception presenting like

acute appendicitis. By such kind of clinical presentation in an adult, the diagnosis of intussusception rarely comes out in the beginning. The presented symptoms, such as an abdominal pain from epigastric area with shifting gradually to RLQ and nausea are more like a typical appendicitis. The other differential diagnosis would be diverticulitis, ectopic pregnancy, urinary tract infection or malignancy with secondary infection or bowel obstruction.

Classical presentations of intussusception in children are current jelly stools, abdominal pain, and palpable sausage-like mass while it is usually nonspecific in adults, with subacute or chronic symptoms of bowel obstruction. [2,4] In adult, an organic lesion could be identified inside intussusceptin in 95% with high incidence of malignance[1,3]. Fortunately, the pathology of the presented case was without malignancy.

The diagnosis in adult sometimes requires the assistance of Sonography and CT scan, which may reveal a pseudokidney sign and a target sign[2,3]. However, a diagnostic laparotomy is indicated in adults for the frequently presented organic lesions. These lesions are commonly malignant, especially when the lesion presents in colon.

## 3. Conclusion

Intussusception is rare and presents with variable symptoms in adults. It can present like acute appendicitis, too. The assistance from sonography and CT scans is not over-emphasized in such kind of atypical problems.

## Conflict of interest statement

We declare that we have no conflict of interest.

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